The welding of...

N_2 with a W-electrode. This is a decisive factor for decreasing the tendency of the seam to intercrystalline corrosion. 4) The arc-welding in N_2 increases the efficiency of the process by 30% and decreases labor costs 15 times - in comparison to argon arc-welding. The arc-welding in N_2 does not deteriorate the qualities of the products.

V. Tarisova

[Abstracter's note: Complete translation]

Card 2/2

26838
S/137/62/000/004/161/201
A060/A101

11710

AUTHORS: Lezov, A. P., Fedorenko, L. I.

TITLE: Some problems in heat-treatment of alloy steels after welding

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 4, 1962, 11, abstract 4E49 ("Tr. Sredneaz. politekhn. in-ta", 1961, no. 15, 116 - 121)

TEXT: An investigation was carried out as to the properties of the metal in the zone of thermal effect in steels 30ХГСА and 30ХГСНА (30KhGSA and 30KhGSNA) with the aim of choosing the best heat-treatment schedule after welding, under which the structure would possess high strength, sufficient ductility and would completely satisfy all the technical requirements. 5 mm thick steel sheets subjected to isothermal hardening prior to welding were used as specimens. After the hardening, some of the sheets were butt-welded and building up was carried out upon others. Some of the specimens were tested without tempering after the welding, and the remaining ones were subjected to tempering at various temperatures. Conclusions: 1) For welded bearing structures of steel 30KhGSA it is necessary to carry out a tempering at 520±10°C after the welding. In the fabrica-

Card 1/2

Some problems in heat-treatment of...

tion of nonbearing parts, for which $\sigma_b \leq 80$ kg/mm^2, the tempering need not be carried out after the welding. 2) For welded structures of steel 30KhGSNA a tempering at 300±10°C is obligatory after the welding. 3) The tempering duration for welded structures of steels 30KhGSNA and 30KhGSA should not be less than 1 - 2 hours, since a reduction in the soaking time will not yield the maximum σ_b. 4) Tempering of welded structures of steel 30KhGSA and 30KhGSNA can be carried out at any time after the welding, but necessarily before putting the structure into service. 5) In choosing either steel 30KhGSA or 30KhGSNA for structures which may be subjected to repair by welding in the process of service, it is necessary to take into account the possibility of tempering after the welding.

V. Tarisova

[Abstracter's note: Complete translation]

Card 2/2

FEDORENKO, L.I.; SAYDASHEVA, Kh.G. (Kazan')

Studying an outbreak of diphteria in a village; abstract. Kaz. med. zhur. no.1:112-113 Ja-F'61 (MIRA 16:11)

FEDORENKO, L.I.

Eradication of diphtheria in the Tatar A.S.S.R. Nauch. trudy Kaz. gos. med. inst. 14:55-56 '64. (MIRA 18:9)

1. Kurs epidemiologii (zav. - prof. A.E.Ozol) Kazanskogo meditsinskogo instituta i Respublikanskaya sanitarno-epidemiologicheskaya stantsiya (glavnyy vrach A.D.Safonova) Ministerstva zdravookhraneniya Tatarskoy ASSR.

ACC NR: AP6018534 SOURCE CODE: UR/0181/66/008/006/1732/1738

AUTHOR: Kuz'menko, P. P.; Novikov, N. N.; Gorid'ko, N. Ya.; Fedorenko, L. I.

ORG: Kiev State University im. T. G. Shevchenko (Kiyevskiy gosudarstvenny universitet)

TITLE: Photomechanical effect in germanium doped with weakly soluble elements

SOURCE: Fizika tverdogo tela, v. 8, no. 6, 1966, 1732-1738

TOPIC TAGS: germanium, hardening, photomechanical effect

ABSTRACT: The purpose of the investigation was to clarify the physical nature of the decrease in hardness of illuminated Ge, in view of the lack of information on the influence of impurities on this process and the lack of systematic research on the influence of impurities on the hardness of Ge in general. Tests were made on samples containing small concentrations of Sb, In, and Ga, and also on Sb containing Ge as an impurity. The Ge host in all tests was standard single crystal with carrier density not higher than 5×10^{13} cm^{-3}. The photochemical effect was measured with the PMT-3 instrument using a procedure described elsewhere (Izv. Vuzov. Fizika, No. 4, 22, 1964). In all cases it was found that the decrease in the hardness of the illuminated surface was strongly dependent on the amount of impurity. When the impurity concentration reached the solubility limit, the photomechanical effect decreased to zero. The character of the impurity had no influence, within the limits of errors, on either the characteristics of the photomechanical effect or the microhardness of the samples in darkness. It is therefore concluded that the governing factor in the

ACC NR: AP6018534

properties of Ge is the quantity and not the type of impurity. In view of the complicated nature of the phenomenon, however, the authors caution that the results should be regarded only as preliminary. Orig. art. has: 8 figures and 2 tables.

SUB CODE: 20/ SUBM DATE: 01Nov65/ ORIG REF: 011/ OTH REF: 004

Card 2/2 mLP

LEBEDINSKIY, Yu.N., inzh.; SHVILIKH, I.V., inzh.; FEDORENKO, L.V., inzh.

Automatic chromium plating area for rods of hydraulic cylinders.
Mashinostroenie no.1:35-36 Ja-F '64. (MIRA 17:7)

FEDORENKO, M., inzh.

Functioning of tensile concrete between cracks in centrally stretched reinforced concrete elements under protracted loading. Bud. mat. i konstr. 4 no.2:23-25 Mr-Ap '62. (MIRA 15:9)

(Concrete--Testing)

FEDORENKO, M.A., inzh.

Mechanized lumbering in the Carpathians. Mekh. sil'. hosp. [8] no.12:23-24 D '57. (MIRA 10:12)
(Carpathian Mountains--Lumbering--Machinery)

FEDORENKO, Mikhail Danilovich; PAVLOV, K.A., red.; KAKHOVSKAYA, O.G., red. izd-va; PAVLOVSKIY, A.A., tekhn. red.

[Aid for the expert appraisal of merchandise] Posobie po tovarovedcheskim ekspertizam. Moskva, Vneshtorgizdat, 1963. 158 p. (MIRA 16:6)

(Commercial products—Quality control)

TORGONSKIY, Mikhail Nikolayevich, dots., kand. tekhn. nauk; DOROVSKOY, Ivan Mikhaylovich, retsenzent; FEDORENKO, Mikhail Fedorovich, retsenzent; LOBACHEV, N.V., red.; PITERMAN, Ye.L., red. izd-va; PARAKHINA, N.L., tekhn. red.

[Principles of construction work] Osnovy stroitel'nogo dela. Moskva, Goslesbumizdat, 1961. 221 p. (MIRA 15:3)
(Construction industry)

MAGNITSKIY, Konstantin Pavlovich, doktor sel'skokhozyaystvennykh nauk; SHUGAROV, Yu.A., starshiy nauchnyy sotrud.; MALKOV,V.K., nauchnyy sotrud.; prinimali uchastiye: ZUYEVA,N.P., nauchnyy sotrud.; GOSUDAREVA,A.G., laborant; FEDORENKO,M.G., laborant; KAVUN,P.K., red.; BACHURINA,A.M., tekhn.red.; PROKOF'YEVA,L.N., tekhn.red.

[New methods of plant and soil analysis] Novye metody analiza rastenii i pochv. Moskva, Gos. izd-vo sel'khoz.lit-ry, 1959. 239 p. (MIRA 14:5)
(Soils--Analysis) (Botanical research)

FEDORENKO, M.I.

Independent work of students in biology lessons. Biol. v shkole no. 1:28-31 Ja-F '61. (MIRA 14:4)

1. Khar'kovskiy oblastnoy institut usovershenstvovaniya uchiteley.
(Biology--Study and teaching)

FEDORENKO, M. I.

Independent work of the students in lessons on biology. Biol i khim 4 no.5:7-10 '61.

1. Kharkovski oblasten institut za usuvurshenstvuvane na uchitelite.

(BIOLOGY)

FEDORENKO, M.I.

Use of mute schematic drawings in class. Biol. v shkole no.2:83 Mr-Ap '62. (MIRA 15:2)

1. Khar'kovskiy gosudarstvennyy universitet.
(Visual aids)

FEDORENKO, M.I.; DANILENKO, N.L.

Base drawings in biology lessons. Biol. v shkole no.4:39-42 Jl-Ag '63. (MIRA 16:9)

1. Khar'kovskiy gosudarstvennyy universitet (for Fedorenko).
2. Srednyaya shkola No.1, Khar'kov (for Danilenko).
(Biology--Audio-visual aids)

FEDORENKO, M.K.

SCHWARZBACH, Martin; KOMOV, T.P., [translator]; ALISOV, B.P., redaktor; MARKOV, K.K., redaktor; TUGOLESOV, D.A., redaktor; FEDORENKO, M.K., redaktor; GERASIMOVA, Ye.S., tekhnicheskiy redaktor

[Climate of prehistoric times; an introduction to paleoclimatology. Translated from the German] Klimaty proshlogo; vvedenie v paleoklimatologiiu. Per. s nemetskogo T.P.Komova, pod red. B.P.Alisova, K.K.Markova,D.A.Tugolesova. Moskva, Izd-vo inostrannoi lit-ry, 1955. 283 p. (MLRA 8:6)

(Paleoclimatology)

DESHPANDE, S.D.; VELISHEV, A.A. [translator]; GOSPODINOV, G.V. [translator]; FEDORENKO, M.K., redaktor; D'YAKOV, A.M., redaktor; RYABCHIKOV, A.M., redaktor; DUNIN, M.S., redaktor; LEBEDEV, V.D., redaktor; SPIDCHENKO, K.I., redaktor; GERASIMOVA, Ye.S., tekhnicheskiy redaktor

[Western India; a regional geography. Abridged translation from the English] Zapadnaia Indiia; geograficheskii obzor. Sokrashchennyi perevod s angliiskogo A.A.Velisheva i G.V.Gospodinova. Pod red. M.K. Fedorenko. Moskva, Izd-vo inostrannoi lit-ry, 1956. 261 p. (MLRA 9:11)
(India--Physical geography)

FEDORENKO, M. M.

Fruit Culture

Low-spreading apricot trees., Sad i og., no. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May 1952, Uncl.

FEDORENKO, M. M.

Fruit Culture - Polesye

Work of Michurin's followers at the Kroshenskiy Technical School on development of new varieties. Sad i og. no. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, _____1953. Unclassified.

FEDORENKO, N.; YAKOVLEV, M., kand.ekonom.nauk

Use of plastics in industry. NTO 6 no.2:5-8 F '64.
(MIRA 17:4)

1. Predsedatel' ekonomicheskoy komissii Vsesoyuznogo tsentral'nogo soveta professional'nykh soyuzov, chlen-korrespondent AN SSSR (for Fedorenko).

FEDORENKO, N.; TULUPNIKOV, A.

Economic efficiency of the chemicalization of stockbreeding. Vop. ekon. no.1:66-73 Ja '64. (MIRA 17:3)

1. Chlen-korrespondent AN SSSR (for Fedorenko). 2. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. Lenina (for Tulupnikov).

FEDORENKO, N. A. Cand Agr Sci -- (diss) " Forestry requirements for the exploitation of forests under conditions of the Northwestern Caucasus, mountainous" Kiev, 1956. 17 pp 21 cm. (Min of Agriculture USSR, Ukrainian Order of Labor Red Banner Agr Acad), 100 copies

(KL, 7-57, 108)

55

Fedorenko, N. B.

1943

SINGULAR SCATTERING OF ARGON IONS IN GAS STRIPPING. D. M. Kaminker and N. B. Fedorenko. Zhur. Tekh. Fiz. 25, 2239-56(1955) Nov. (In Russian)

A cluster of singly charged argon ions in the energies from 40 to 150 kev was studied. Investigations in conditions limited to singular collision between A^+ ions and argon atoms were made to find the angle of distribution for the A^+ ions scattered without recharge; for the A^{2+}, A^{3+}, A^{4+}, and A^{5+} ions formed during stripping (processes $A^+ \rightarrow A^{2+}$, $-A^+ \rightarrow A^{3+}$, $-A^+ \rightarrow A^{4+}$, $A^+ \rightarrow A^{5+}$); and, for fast neutral atoms occurring during resonance recharge $A^+ \rightarrow A^0$. Variations were kept within the limits of 0 to 15° deviation from the direction of the original cluster. A general method

D.M. KAMINKER

was developed for calculations of absolute differential cross sections of scattering processes with variation of the charge $d\sigma/dw$ for all angles including $\theta = 0°$. It was found that recharging and scattering without recharge happens at small angles of deviation, while stripping occurs at large angles. On the curve $d\sigma/dw = f(\vartheta)$ for scattering with stripping exists a central maximum at $\theta = 0°$, and a second maximum displaced from the direction of the original cluster. The angle corresponding to the position of the second maximum grows with the increase of the stripping order and with the reduction of the original ions energy. The integral effective cross sections of the stripping processes are calculated on the basis of the angular distribution curves. With the original energy of the ions at T = 75 kev: $\sigma_{1\to2} = 1.4 \times 10^{-16}$, $\sigma_{1\to3} = 2.5 \times 10^{-17}$, $\sigma_{1\to4} = 6.0 \times 10^{-18}$, $\sigma_{1\to5} = 1.8 \times 10^{-18}$ cm^2. Neon, helium, and krypton were investigated for the $A^+ \to A^{4+}$ stripping process. (tr-auth)

2/2

FEDORENKO, N.D.

Nonparasitic cyst of the pericardium. Khirurgiia no.3:88-89 Mr '54. (MLRA 7:5)

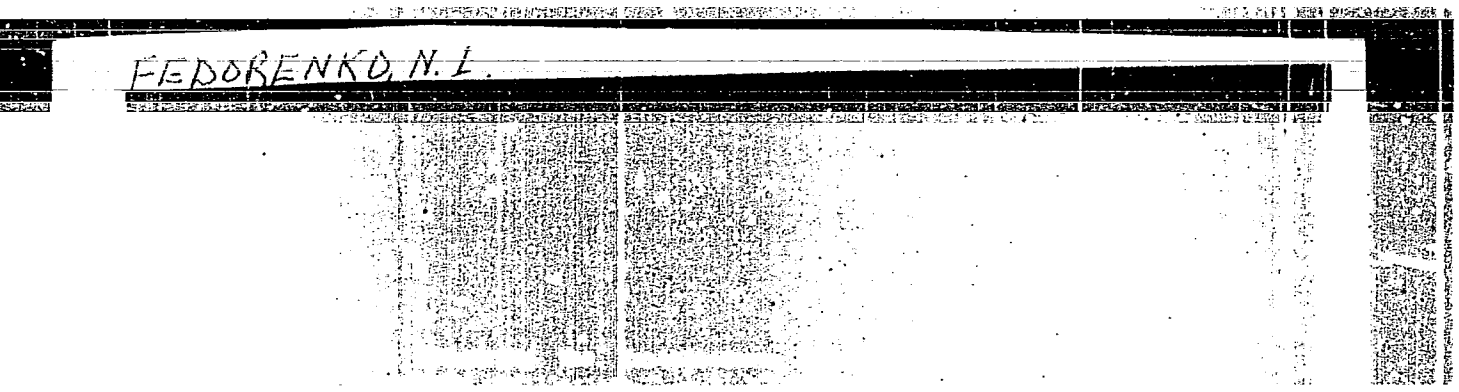
(CYSTS, *pericardium, non-parasitic) (PERICARDIUM, cysts, *non-parasitic)

TERNIKOV, P. V. Eng., MUSATOV, T. P. Eng., CHERNYSHEVICH, V. I. Eng., FEDORENKO, N. I. Eng.

Electric Relays

Disconnecting charging and load currents by means of relays. Elek. sta. 23 No. 2, 1953.

9. **Monthly List of Russian Accessions**, Library of Congress, June 1953. Unclassified.



FRIDENTAL', R.M.; FEDORENKO, N.M.

Shield for a tracheostoma following extirpation of the larynx.
Zhur. ush., nos. i gorl. bol. 23 no.3:89-90 My-Je'63.(MIRA 16:7)

1. Iz otdeleniya bolezney ukha, gorla i nosa (zav.- R.M.Fridental')
1-y gorodskoy bol'nitsy g. Kadiyevki Luganskoy oblasti.
(TRACHEA--SURGERY) (LARYNX--SURGERY)

FEDORENKO, N.P.; BULAVINOVA, I.A.

Production and uses of liquefied gases in capitalist countries.
Khim. prom. no.10:787-792 O '63. (MIRA 17:6)

FEDORENKO, N.F.; TSYPINA, E.I.

Technical and economic comparison of the methods for the production of phosphoric acid. Khim. prom. 40 no.9:672-675 S '64. (MIRA 17:11)

FEDORENKO, N. P.

USSR/Chemistry - Chemical economics

FD-503

Card 1/1 : Pub. 50-2/23

Author : Fedorenko, N. P., Docent, Can. Econ. Sci.

Title : Concerning the investigation of methods for the calculation of capital expenditures

Periodical : Khim. prom., 262-267 (6-11), Jul/Aug 1954

Abstract : Discusses the economic aspects of capital expenditures in the chemical industry. Three references, all USSR, all since 1940. Three tables.

Institution : Moscow Institute of Fine Chemical Technology imeni M. V. Lomonosov

Submitted :

Translation M-220, 1 Jan 55

Fedorenko, N. P.

Methods and economics of production of acetylene. N. P. Fedorenko. *Khim. Nauka i Prom.* 1, 337–44(1956). —A review of methods of production of C_2H_2 from CaC_2 by elec. cracking of hydrocarbon gases, b/ thermal cracking with addn. of O, and by high-temp. pyrolysis of propane. M. Zajew

FEDORENKO, N.

USSR/Chemical Technology. Chemical Products and Their Application -- General Questions, I-1

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 4993

Author: Fedorenko, N., Fridenberg, V.

Institution: None

Title: Important Questions of Chemical Industry Economics

Original Publication: Vopr. ekonomiki, 1956, No 6, 25-38

Abstract: The most important economic problems of various branches of the chemical industry are considered in the light of the directives of the Twentieth Congress of Communist Party of the Soviet Union.

Card 1/1

GEL'PERIN, N.I.; FEDORENKO, N.P.

"The increasing role of chemistry in the national economy of the U.S.S.R." by N.N. Nekrasov. Reviewed by N.I. Gel'perin, N.P. Fedorenko. Khim.prom. no.5:319 Jl-Ag '57. (MIRA 10:12)
(Chemistry, Technical)
(Nekrasov, N.N.)

FEDORENKO, N. P.

AUTHORS: Fedorenko, N. P., Borisovich, G. F. 64-8-3/19

TITLE: On the Raw Material Base and Economy of Isoprene Rubber Production Isopren Caoutchouc (O syr'yevoy baze i ekonomike proizvodstva izoprenovogo kauchuka).

PERIODICAL: Khimicheskaya Promyshlennost', 1957, Nr 8, pp. 10-1[illegible] (USSR)

ABSTRACT: One of the newest types of synthetic caoutchouc is the type СКИ . It was produced synthetically in the USSR in the Allunion Scientific Research Institute for Synthetic Caoutchouc (VNIISK) by means of catalytic polymerization of the isopren and has a series of advantages. This caoutchouc is according to its properties similar to the natural caoutchouc and admits an essential improvement of the quality of the tires and of the technical rubber products. The tensile strength amounts to 300 kg/cm^2 at a relative stretching of 1000% (compared to natural caoutchouc with 360 kg/cm^2, 850% resp.). According to the dynamic elasticity properties this caoutchouc is equivalent to the natural caoutchouc. The temperature at alternating bending amounts to 108° (126° in the case of natural caoutchouc). From September 1956 up to February 1957 tests were carried out with tires of this caoutchouc under full stress in streets

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with a cover of mixed type. The experiments showed that the tires of this caoutchouc have considerably better operating indices than tires of other synthetic caoutchoucs, and are similar to those of natural caoutchouc. In the sixth fifth of the year the production of tires for trucks of isopren caoutchouc will be started. The three most important methods for the production of isopren which forms the initial monomer for the production of the isopren caoutchouc are described here. 1) In the first place is the technically-economically most favorable method of the production of isopren by means of dehydration of isopentane or isopentene with subsequent separation and purification of the finished product. Following sources for the production of isopentane are given:
a) isopentane is contained in the benzenes which are obtained by means of direct destillation. Baku-benzenes contain 0,5%, those of Grozno and Maykop 2,2%, and the benzenes of the petroleum of Stavropol 9,0%. However, the distance of the isopentane from the benzenes reduces considerably the octane number of the latter, b) The accompanying gases of the petroleum as well as the petroleum stabilizing gases can be of real industrial importance for the production of isopentane.

On the Raw Material Base and Economy of Isoprene Rubber Production 64-8-3/19

Especially great are the gas reservoirs in the region of the second Baku which are evaluated with hundreds of milliards of cubicmeters. In 1960 the caoutchouc industry can be furnished with many ten thousand tons of isopentane. The unrational exploitation is pointed out: in 1956 were released into the atmosphere or burnt as torches: circa 3 milliards m^3 gas which is equivalent to 5 million tons of charcoal. c) The gases of the petroleum working can serve as the greatest source for the production of isopentane.

2) The second method for the synthesis of isopren is that of A. Ye. Favorskiy, improved by I. N. Nazarov, member of the Academy. Acetone and acetylene are used here as initial products. These can on their part be produced from a cheap petroleum gas. At present acetone is produced in great quantities to an industrial extent. The chances for the production of phenol and acetone from benzene and propylene over isopropylene benzene are great. The most promising and economically most favorable method for the production of acetylene is that of the electrical and thermal cracking of hydrocarbon gases. It is shown that inspite of the high

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production and investment costs according to this method by Favorskiy a marketable caoutchouc for a mass production can be obtained.
3) In the third place is the method of the synthesis of isopren from formaldehyde and isobutylene which consists of 2 stages: synthesis of the 4,4-dimethyldioxane and subsequent transformation of the diemthyldioxane into isopren by catalytic way.
There are 1 figure, 4 tables, and 15 references, 14 of which are Slavic.

ASSOCIATION: Institute for Fine Chemical Technology Moscow imeni M. V. Lomonosov (Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M. V. Lomonosova).

AVAILABLE: Library of Congress

FEDORENKO, N.P.; BORISOVICH, G.F.

Raw materials supply and economic factors in the manufacture of isoprene rubber. Khim. prom. no.8:458-462 D '57. (MIRA 11:2)

1. Moskovskiy institut tochnoy khimicheskoy tekhnologii imeni M.V. Lomonosova.

(Isoprene)

SOMINSKIY, Vladimir Samoylovich, dotsent, kand.tekhn.nauk; GUREVICH, Semen Borisovich, inzh.; KOGAN, Bronislava L'vovna, dotsent, kand.ekon.nauk; UCHASTKINA, Zoya Vasil'yevna, dotsent, kand. tekhn.nauk. Prinimal uchastiye: IVCHER, M.I., starshiy prepodavatel'. FEDORENKO, N.P., prof., doktor ekon.nauk, retsenzent; SARMATSKAYA, G.I., red.izd-va; BRAZHISHKO, L.V., tekhn.red.; PROKOF'YEVA, L.N., tekhn.red.

[Production organization and planning at pulp and paper mills] Organizatsiia i planirovanie proizvodstva na tselliulozno-bumazhnykh predpriiatiiakh. Moskva, Goslesbumizdat, 1958. 257 p. (MIRA 12:6)
(Woodpulp industry) (Paper industry)

AUTHOR: Fedorenko, N.P. 153-58-1-2/29

TITLE: Soviet Chemical Industry on the Day of the 40th Anniversary of the Great Socialist October Revolution (Sovetskaya khimicheskaya promyshlennost' k 40-y godovshchine velikoy oktyabr'skoy sotsialisticheskoy revolyutsii)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 1, pp. 2-11 (USSR)

ABSTRACT: Already before the October Revolution the USSR had inexhaustible raw material sources. After the collapse of the old regime the level of 1913 was again attained already in 1927. After the end of the first Five Years' Plan production figures in the chemical industry were increased by 3.15 times their amount. The 2. Five Years' Plan resulted in an increase of production figures by 5.8 times the amount of those of 1913. In the course of further development during the 3. Five Years' Plan the production of sulphuric acid rose by 13 times and that of caustic soda by 3.5 times their previous amount. The production of synthetic rubber was begun in the USSR already in 1932, whereas in Germany this was the case (on a larger scale) only in 1938. The second World War caused

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a serious setback. It was during this period (1941/45) that the most important chemical works were transferred from the western and southern districts of the USSR to its eastern parts. In the course of reconstruction after the war the chemical industry was modernized, and at the beginning of the 4. Five Years' Plan the process of industrialization was considerably accelerated. Above all, the chemical industry was extended and developed. During the 5. Five Years' Plan a number of new plants (petroleum industry) began to operate. The production of synthetic fibres, of aniline, of nitro-varnishes and dyes was considerably increased. In the course of the 6. Five Years' Plan a further increase of chemical production, among other things, an increase of the production of synthetic fibres to 3 times its previous amount, is intended.

64-58-2-16/16

AUTHORS: Fedorenko, N. P., Shchukin, Ye. P., Markevich, V. A.

TITLE: Synthetic Ethanol Industry Abroad (Promyshlennost' sinteticheskogo etilovogo spirta za rubezhom)

PERIODICAL: Khimicheskaya Promyshlennost', 1958, Nr 2, pp. 58 - 63 (USSR)

ABSTRACT: This paper only contains/data on foreign production methods, output capacities, economic data etc. After giving statistical details on the use of ethanol the development of this industry during the last years is mentioned. Then the enterprises in the USA producing synthetic ethanol are given, mentioning the first year of production, the kind of synthesis, as well as some more production data. This is done in form of a table. Also data on the processing, a diagram on the production of technical ethanol in the USA in 1957 as well as commercial considerations are mentioned. Besides these enterprises in the USA the European plants for the production of technical ethanol in England, Denmark and the German Federal Republic are given; in this connection it is pointed out that in Europe exclusively the method of direct hydration and not, as in the USA, that of sulfuric acid

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hydration is used. Economic hints are mentioned with respect to the production of ethanol, the fermentative as well as the synthetic one, mainly in the USA, statistical data and diagrams of the raw material consumption being given. There are 4 figures, 2 tables, and 32 references, 0 of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organicheskikh produktov
(Scientific Research Institute for Synthetic Alcohols and Organic Products)

AVAILABLE: Library of Congress

1. Ethanol--Synthesis

USCOMM-DC-55967

FEDORENKO, N.P.; SHCHUKIN, Ye.P.; MARKEVICH, V.A.

Synthetic ethyl alcohol industry abroad. Khim. prom. no.2:122-127 Mr '58. (MIRA 11:5)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organicheskikh produktov. (Ethyl alcohol)

FEDORENKO, N.

Problems in accelerating the development of the chemical industry. (MIRA 11:8)
Vop. ekon. no.7:27-42 Jl '58.
(Chemical industries)

FEDORENKO, N.P.; SHCHUKIN, Ye.P.; FRIDMAN, L.A.

Production and use of glycerin in the U.S.A. Biul. tekhn.-ekon. inform. no.8:94-96 '58. (MIRA 11:10)
(United States--Glycerol)

SOV/1397

PHASE I BOOK EXPLOITATION

5(1)

Fedorenko, Nikolay Prokof'yevich, Doctor of Economic Sciences, Professor

Narodnokhozyaystvennoye znacheniye sinteticheskikh materialov (Significance of Synthetic Materials in the National Economy) Moscow, Izd-vo "Znaniye," 1959. 47 p. (Series: Vsesoyuznoye obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy. Seriya III, 1959, no. 1) 56,000 copies printed.

Sponsoring Agency: Vsesoyuznoye obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy.

Ed.: Bogatyrenko, Z.S.; Tech. Ed.: Savchenko, Ye. V.

PURPOSE: This book is intended for economists and for administrators in the fields of textile manufacturing, rubber production, chemical technology, etc., who are interested in the development, use and economic importance of synthetic materials.

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Significance of Synthetic Materials (Cont.) SOV/1397

COVERAGE: The book presents a historical analysis of the development of chemical technology in the Soviet Union and provides comparative data on the production of synthetic materials in various countries. The plastics industry is likewise reviewed and prospects for replacing difficultly accessible materials with synthetics are discussed. Physico-chemical characteristics of synthetic fibers are given with respect to tensile strength and longevity as compared to those of steel, copper and aluminum. Rubber production is reviewed with emphasis on type (with special mention of a high-quality isoprene synthetic rubber, which is relatively new to Soviet industry). Raw material expenditure and production costs are given for butane rubbers in comparison with those for rubbers made from synthetic alcohols. Prospective by-products of oil and gas refining are also mentioned. There are no references. No personalities are mentioned.

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Significance of Synthetic Materials (Cont.) SOV/1397

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T.M.
6-5-59

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FEDOROVICH, Mikhail Mikhaylovich; LEOSHKIN, A.P., dotsent, kand.ekonom. nauk; POLYAKOVA, dotsent, kand.ekonom.nauk; KOVALEVA, A.M., kand. ekonom.nauk; TIKHOMIROV, V.A., dotsent, kand.tekhn.nauk, retsenzent; KOVYLIN, I.I., insh., retsenzent; TEPLOV, T.V., prof., doktor ekonom. nauk, retsenzent; FEDORENKO, N.P., prof., doktor ekonom.nauk, retsenzent; TROITSKIY, D.A., dotsent, retsenzent; PETRUSHEV, I.M., red.; TER-STEPANYANTS, M.S., red.; GERASIMOVA, Ye.S., tekhn.red.

[Organization and planning of chemical enterprises] Organizatsiia i planirovanie khimicheskogo predpriiatiia. Moskva, Gosplanizdat, 1959. 547 p. (MIRA 12:7)
(Chemical industries)

5(1) 15(9) SOV/64-59-3-5/24

AUTHORS: Fedorenko, N. P., Borisovich, G. F.

TITLE: The Development in the Production of Synthetic Chloroprene Rubber (Razvivat' proizvodstvo khloroprenovogo sinteticheskogo kauchuka)

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 3, pp 16-21 (USSR)

ABSTRACT: The new Seven-year Plan provides an increase in the production of synthetic rubber (SR) including that of chloroprene rubber (CR) which will be 3.4 times as high as the present production. Some properties of CR are described, and the possibilities of its application are explained. SR investigations in the USSR began in 1932 in the GIPKh (Ref 20) with the collaboration of A. L. Klebanskiy, I. M. Dolgopol'skiy and L. G. Tsyurikh. The present distribution of the application fields of CR in the USSR is given, and it is pointed out that the VNIISK (Ref 3) recently developed an improved catalyst for producing CR. In addition to a comparison of CR and other SR types in the USSR, it is pointed out that the importation of natural rubber could be cut down in consequence of the application of CR, and the high price of CR could be reduced by means of sufficient im-

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provements and by an increase in the production of acetylene, all this is illustrated by the corresponding data (Tables 1,2). The USSR possesses enough resources of raw materials (for acetylene and chlorine) for developing a large CR industry, and for 1965 for instance, a gas production of 150 billion m^3 (1958 it amounted to 30 billion m^3) is provided, and the petroleum production is planned to be increased to 230-240 million tons (it doubled compared with 1958), primary manufacturing will be 2.2 - 2.3 times as high, catalytic cracking 4.7 times as high and catalytic reforming 16-18 times as high. 100-200000 t of gas per 1 million tons of petroleum can be produced by means of catalytic cracking with an output of 4-5 tons of CR per ton of CH_4. In case of the second raw material, that is sodium chloride (chlorine), electric energy is important and will be 2.1 - 2.2 times as high in 1965, and is planned to amount to 500-520 billion kilowatt/hour. Considering the resources of raw materials, the areas of the Ural, the Volga valley, in East Siberia, in the South and in (Soviet)Central Asia are of greatest interest for the CR production. In order

to point out the necessity of a CR production, statements and data (of foreign industries) concerning this field are given (especially USA). There are 3 tables and 21 references, 11 of which are Soviet.

FEDORENKO, N.P.; SHAKH, A.D.

New stage in the development of the chemical industry. Kauch. i rez. 18 no.1:1-3 Ja '59. (MIRA 12:1)
(Rubber industry)

FEDORENKO, N.P.

PHASE I BOOK EXPLOITATION SOV/4579

Konferentsiya po razvitiyu proizvoditel'nykh sil Vostochnoy Sibiri, 1958. Khimicheskaya sektsiya

Khimicheskaya promyshlennost'; trudy konferentsii (Chemical Industry; Transactions of the Conference on the Development of Production Forces in Eastern Siberia) Moscow, Izd-vo AN SSSR, 1960. 202 p. (Series: Razvitiye proizvoditel'nykh sil Vostochnoy Sibiri) Errata slip inserted. 2,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Sovet po izucheniyu proizvoditel'nykh sil. Sibirskoye otdeleniye.

Editorial Board: I.P. Bardin (Deceased) Chief Ed., Academician; M.A. Lavrent'yev, Academician; S.I. Vol'fkovich, Academician, V.I. Dikushin, Academician; V.S. Nemchinov, Academician; V.I. Veyts, Corresponding Member, Academy of Sciences USSR; O.D. Levitskiy, Corresponding Member, AS USSR; N.N. Nekrasov, Corresponding Member, AS USSR; L.V. Pustovalov, Corresponding Member, AS USSR; T.S. Khachaturov, Corresponding Member, AS USSR; N.F. Rostovtsev, Academician, VASKhNIL; A.N. Popov, Corresponding Member, Academy of Building and Architecture USSR; L. Ye. Grafov, Deputy Chairman, Gosplan RSFSR; A.D. Gashev, Member, Gosplan RSFSR; A. Ye. Probst, Professor; V.F. Vasyutin, Professor; V.A. Krotov, Professor;

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Chemical Industry (Cont.) SOV/4579

P.V. Vasil'yev, Doctor of Economic Sciences; G.I. Lyudogovskiy, Candidate of Technical Sciences; P.A. Letunov, Candidate of Geological and Mineralogical Sciences; and M.G. Shkol'nikov, Candidate of Economic Sciences; Editorial Board of this volume: S.I. Vol'fkovich (Resp. Ed.); G.V. Uvarov, Deputy Chairman, State Committee on Chemistry, Council of Ministers USSR; and V.P. Komarov, Docent; Ed. of Publishing House: A.L. Bankvitser; Tech. Ed.: V.V. Bruzgul'.

PURPOSE: This book is intended for chemical engineers and economic planners concerned with the industrial development of Eastern Siberia.

COVERAGE: This volume is one of a series of 13 containing the Transactions of the Conference on the Development of the Productive Forces in Eastern Siberia. The Conference took place in August 1958. The volume contains summaries of 20 reports presented at the meetings of the Chemical Section of the Conference, brief summaries of pertinent discussions, and the text of resolutions taken by the Chemical Section. The reports deal with the possibilities of developing chemical industries in Eastern Siberia capable of producing artificial fibers, acetylene, plastics, synthetic detergents, synthetic rubber, mineral fertilizers, sulfuric acid, nitrogen, soda, chlorine, etc. No personalities are mentioned. There are no references.

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S/064/60/000/03/04/022
B010/B008

AUTHORS: Fedorenko, N. P., Shchukin, Ye. P., Fridman, L. A.

TITLE: On the Economy of Acetone Production

PERIODICAL: Khimicheskaya promyshlennost', 1960, No. 3, pp. 202-204

TEXT: The further development of acetone production with respect to its most favorable economic aspects is discussed. An increase of acetone production by 4.5 times in the period from 1959 to 1965 is provided in the new Seven-year Plan, and the cumene method is to be used mainly. It is pointed out in connection therewith that the problem of the simultaneous production of phenol is of special importance. A comparison of the production of acetone and phenol by various methods (Table 1) shows that the cumene method is the most suitable one. This may also be seen from an explanation of the calculations of the production cost which is still inaccurate. Corresponding applications of acetone must be provided for, since a large increase in the production of phenol by the cumene method is also provided for, and the applications of acetone are becoming more and more numerous. Acetic anhydride can be produced by pyrolysis from

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acetone and acetic acid. Although this method is not the most suitable one economically (Table 2), it is to be preferred to the other methods for various reasons. A treble use of acetone as a solvent in the production of cellulose ester is provided for 1965. Acetone is also increasingly applied in the synthetic materials industry. Calculations showed that, provided the increased demand for phenol in 1965, 1970, and 1975 be covered with the help of the cumene method, the consumption of the quantities of acetone produced is safeguarded. The production increase of phenol and acetone by the cumene method exclusively, planned for 1975, is thus completely justified. There are 2 tables.

FEDORENKO, N.P.

PHASE I BOOK EXPLOITATION SOV/5064

Gul', Valentin Yevgen'yevich, Professor, Doctor of Chemical Sciences, and Nikolay Prokof'yevich Fedorenko, Professor, Doctor of Economics

Polimery; vysokomolekulyarnyye veshchestva. Posobiye dlya uchiteley (Polymers; Macromolecular Substances. Textbook for Teachers) Moscow, Uchpedgiz, 1960. 178 p. Errata slip inserted. 21,000 copies printed.

Ed.: A. A. Korotkiy; Tech. Ed.: T. V. Karpova.

PURPOSE: This textbook is intended for chemistry teachers in secondary schools and for students in pedagogical institutes.

COVERAGE: The textbook describes the basic problems connected with the chemical and technological principles of high polymers. It presents data on the raw materials and on the economics of manufacturing caoutchouc, rubber, plastics, and synthetic fibers. The material is based on Soviet and other textbooks, monographs, scientific journals, and on previous works of the authors. The authors thank Professor Z. A. Rogovin, Doctor of Chemical Sciences;

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Polymers; Macromolecular Substances (Cont.) SOV/5064

N. S. Prostakov, Docent, Candidate of Chemical Sciences; N. S. Il'in, Docent, Candidate of Chemical Sciences; Ya. N. Kaplunov, Docent, Candidate of Technical Sciences; V. A. Lepetov, Docent, Candidate of Technical Sciences; L. A. Tsvetkov, Senior Scientific Workers of the APN RSFSR, and B. A. Krentsel', Doctor of Chemical Sciences. There are no references.

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FEDORENKO, Nikolay Prokof'yevich; SAVINSKIY, Nikiil Simonovich; OKL'PMRIN, N.I., red.; ROTOVA, R.S., red.izd-va; MULIKOVA, I.F., tekhn.red.

[Outline of the economics of the chemical industry of the U.S.S.R.] Ocherki po ekonomike khimicheskoi promyshlennosti SSSR. Moskva, Izd-vo "Vysshaia shkola," 1960. 358 p. (MIRA 14:3)

(Chemical industries)

ABUBAKIROVA, A.A.; FEDORENKO, N.P.

Economics of the manufacture of acetate fibers. Khim.volok. no.4: 61-63 '60. (MIRA 13:10)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V. Lomonosova.

(Rayon)

FEDORENKO, N. P.; MASHINSKIY, I. A.

National economy and the labor expenditure per unit of production in the chemical industry. Khim.prom. no.5:353-358 Jl-Ag '60. (MIRA 13:9)

(Chemical industries)

S/183/60/000/006/005/005
B020/B058

AUTHORS: Krichevskiy, I. Ye., Fedorenko, N. P.

TITLE: The Effectiveness of the Use of Chemical Fibers in the Tire Industry

PERIODICAL: Khimicheskiye volokna, 1960, No. 6, pp. 49-53

TEXT: Until World War II, cotton cord only was used in the manufacture of tires. During the war, the USA, England, and Germany werecut off from the main areas of natural rubber production and were forced to organize the production of synthetic rubber; the latter, however, increases the heat generation inside the tire considerably, and higher demands are thus made on the heat resistance of the cord. During World War II, the use of polyamide fiber for a cord was started with and spread rapidly, specially in the USA, owing to the improved cord quality. Data on the manufacture of various types of textile cord in the USA are tabulated and corresponding numerical data concerning the USSR are also given. A great reduction of the cotton-cord manufacture and an improvement of the quality of cords made from chemical fibers, mainly of viscose cord, is expected in the course of

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The Effectiveness of the Use of Chemical Fibers in the Tire Industry

S/183/60/000/006/005/005
B020/B058

the Seven-year Plan in connection with the accelerated development of the chemical industry and of chemical fibers, as decided by the May Plenum of the TsK KPSS (CC CPSU) in 1958 and by the 21st Party Congress of the CPSU. The chemical and technological factors of production and use of ultrahigh-strength viscose- and caprone cord are dealt with, as well as the manufacture of initial materials for cord fibers, of fabric and cord, of outer tires and the use of caprone or Anid for the cord manufacture. The Baykal'skiy cellyuloznyy zavod (Baykal Cellulose Plant) and the Institut plenok i iskusstvennoy kozhi (Institute of Films and Synthetic Leather) are mentioned. The editors ask readers and organizations from this branch to signal their attitude regarding the problems raised. There are 5 references: 1 Soviet, 1 US, 2 British, and 1 German.

ASSOCIATION: MITKhT im. Lomonosova (Moscow Institute of Fine Chemical Technology imeni M. V. Lomonosov)

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FEDORENKO, N.P.; FRIDMAN, L.A.; SHCHUKIN, Ye.P.

Production and uses of aromatic hydrocarbons in the U.S.A.
N.P.Fedorenko, L.A.Fridman, E.P.Shchukin. Khim. prom. no. 7:604-612 O-N '60. (MIRA 13:12)
(Unites States--Hydrocarbons)

MASHINSKIY, I.; FEDORENKO, N.

Uncovering hidden potentialities of labor productivity in the chemical industry. Biul.nauch.inform.; trud i zar.plata 3 no.6:3-9 '60. (MIRA 13:6)
(Chemical industries—Labor productivity)

FEDORENKO, Nikolay Prokof'yevich, doktor ekonom. nauk, prof.; NEKRASOV, N.N., retsenzent; MARKARYAN, Kh.A., inzh., retsenzent; OSADA, P.A., red.; MOZGALEVSKAYA, S.A., mlad. red.; GERASIMOVA, Ye.S., tekhn. red.

[Economics of the industry of synthetic products] Ekonomika promyshlennosti sinteticheskikh materialov. Moskva, Izd-vo ekon.lit-ry, 1961. 614 p. (MIRA 15:2)

1. Chlen-korrespondent AN SSSR (for Nekrasov).
(Synthetic products)

FEDORENKO, N.P.; FRIDMAN, L.A.; SHUMSKAYA, N.N.; SHCHUKIN, Ye.P.

Certain problems related to the economics of the phenol production. Khim.prom. no.3:163-166 Mr '61. (MIRA 14:3)
(Phenols)

FEDORENKO, Nikolay Prokof'yevich; SHILKINA, Raisa Nikolayevna; KOROTKIY, A.A., red.; KARPOVA, T.V., tekhn. red.

[Seven-year plan in the chemical industry (in numbers and facts); manual for teachers] Semiletka khimicheskoi promyshlennosti (v tsifrakh i faktakh); posobie dlia uchitelei. Moskva, Gos. uzhebno-pedagog. izd-vo M-va prosv. RSFSR, 1961. 102 p. (MIRA 14:12)
(Chemical industries)

BAKUMENKO, T.L.; FEDORENKO, N.P.; SHCHUKIN, Ye.P.

Polystyrene production economics. Plast.massy no.5:40-44 '61.
(MIRA 14:4)

(Styrene)

FEDORENKO, N.; SHCHUKIN, Ye.

Economic problems of the comprehensive use of chemistry in the national economy ("Economics of the chemical industry" by N.N. Nekrasov. Reviewed by N.Fedorenko, E.Shchukin). Vop.ekon. no.5: 103-106 My '61. (MIRA 14:5)
(Chemical industries) (Nekrasov, N.N.)

FEDORENKO, N.P.; LIVSHITS, Yu.T.

Manufacture and uses of poly (vinyl chloride) in capitalist countries.
Plast.massy no.6:68-73 '61. (MIRA 14:5)
(Ethylene) (Plastics)

FEDORENKO, N.P.; LIVSHITS, Yu.T.

Economic aspects of the production Of acetylene. Khim. i tekh. topl. i masel 6 no.11:46-51 N '61. (MIRA 14:12)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova.

(Acetylene)

FEDOTENKO, N.F.; KOSHELEVA, V.S.

Production of chlorine organic solvents in capitalist countries.
Khim. prom. no.7:510-514 Jl '61. (MIRA 14:7)
(Solvents)
(Chlorine organic compounds)

BAKUMENKO, T.L.; FEDORENKO, N.P.; SHCHUKIN, Ye.P.

Economic aspects of the industry of polymerization plastics. Plast.-massy no.9:52-56 '61. (MIRA 15:1)
(Plastics industry) (Polymers)

S/138/62/000/001/001/009
A051/A126

AUTHORS: Fedorenko, N.P.; Shakh, A.D.

TITLE: Development of the rubber industry

PERIODICAL: Kauchuk i rezina, no. 1, 1962, 1 - 4

TEXT: It is predicted that the output of chemical industrial production will have increased 17 times by 1980, against a 6.2 to 6.4-fold increase in the gross production of other industry branches. The synthetic rubber output will increase 13 to 14 times in that period, the tire industry 3.5 times and rubber-industry articles 3 times. The cost of the articles will be reduced by 30 - 40%. An improvement in the quality of synthetic rubbers will lead to better tires. The production of sodium-butadiene rubber СКБ (SKB) will be discontinued in the current Seven-Year-Plan. The specific weight of copolymer rubbers will be reduced in the general SR production, by increasing the output of high-elastic stereo-regular rubbers, including tsis - 1.4 - isoprene СКИ (SKI), tsis - 1.4 - butadiene СКД(SKD), ethylene - propylene СКЭП(SKEP), and various other products. Butane and pentane will be the main raw material for the production of butadiene and isoprene. New types of latexes are to be developed. In

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Development of the rubber industry

the next 5 - 7 years, cotton fabrics used in tire production and industrial rubber articles are to be replaced completely by chemical fibers (viscose, capron). New polymer materials are being studied at present for the production of cord and industrial fabrics: polyethers, polypropylene, polyurethane, uria-polyamide (urilon), etc. The production of carbon black is being set up in oil refineries in view of an increased consumption of liquid petroleum products. New accelerators, softeners, vulcanization inhibitors, anti-aging agents are being studied. Automatic weighing and loading in rubber production is recommended. The conveyer belt method will be used to manufacture molded articles: rubber bearings, circular rings, U-shaped cuffs, instrument shock absorbers, etc. Automatic assembly lines in tire production are further recommended. New industrial rubber plants are being put up and old ones reconstructed. Tire-repair plants are also being built. Re-building plants should be combined with tire-repair to include molding and non-molding shops. Special emphasis is made on the importance of scientific research and designing, especially in the carbon black, regenerating and certain other branches of the rubber industry.

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LIVSHITS, Yu.T.; FEDORENKO, N.P.

Economic effectiveness in the use of poly(vinyl chloride) in the cable industry. Plast.massy no.2:56-58 '62. (MIRA 15:2)
(Ethylene) (Cables)

S/191/62/000/004/014/017
B110/B138

AUTHORS: Vayn, A. S., Fedorenko, N. P.

TITLE: Application and production economics of synthetic resins of the vinyl acetate group

PERIODICAL: Plasticheskiye massy, no. 4, 1962, 53-55

TEXT: In 1949, the Yerevan plant "Polivinilatsetat" began production of vinyl acetate and its derivatives. By 1965, 64 % polyvinyl acetate is to be used in the paint and varnish industry for the production of approximately 200,000 t of water-soluble paint. 46,000,000 rubles and 25,400 t vegetable oil will thus be saved. The vinyl acetate group includes polyvinyl butaryl for the production of БФ (BF) glues with phenol resins. Polyvinyl alcohol is used for the production of synthetic fibers. However, working costs must be reduced considerably if production is to be increased. Trebled output of the synthesis units of the "Polivinilatsetat" plant, continuous rectification of vinyl acetate, and regeneration of acetic acid, partial utilization of the reaction heat to preheat reaction gases, use of ditolyl methane and highly compressed vapor as heat carrier

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Application and production...

are planned, to improve production processes. Costs of material for 1 t vinyl acetate will thus be reduced 10-15 %, and power costs several times. Production costs of 1 t vinyl acetate will be reduced 41.4 % including raw material, power and overhead reductions of 18.1 %, 18.1 %, and 5.2 %, respectively. Continuous production means that polymerization time can be reduced to nearly 1/5, the amount of reaction apparatus to 1/6, and also a six-fold increase in output per m^2, 44.4 % reduction in labor force, 9.3 % reduction in the annual vinyl acetate consumption, and almost 10-12 % reduction in the polyvinyl acetate costs. Capital investment for vinyl acetate can thus be reduced by 50 %. Expansion of industrial units and higher capacity increases productivity and reduces capital investment and production costs. The production of acetylene from hydrocarbons reduces costs 35-45 %. New, efficient methods of producing acetic acid will reduce costs to 25-33 % thus involving a reduction of 20-25 % in the cost of vinyl acetate. All these factors would contribute to reducing the cost of producing polyvinyl acetate by 50-55 %. There is 1 table.

Card 2/2

GORBUSHIN, V.I.; PLATONOV, V.M.; FEDORENKO, N.P.

Selecting the optimum reflux-to-product ratio based on technical and economic analysis with the use of computers. Khim.prom. no.4:273-276 Ap '62. (MIRA 15:5)
(Distillation, Fractional)

FEDORENKO, N.; MASHINSKIY, I.

Determining the total expenditure of work time per unit of production in the chemical industry. Biul.nauch.inform.trud i zar.plata 5 no.11:42-49 '62. (MIRA 15:12)
(Chemical industries) (Time study)

BIRGER, G.Ye., kand.ekonom.nauk; SAVINSKIY, E.S., kand.ekonom.nauk; FEDORENKO, N.P., doktor ekonom.nauk

Development of the production of synthetic polymer materials in capitalist countries. Zhur.VKHO 7 no.2:212-216 '62. (MIRA 15:4)

(Polymers)

FEDORENKO, Nikolay Prokof'yevich; KRICHEVSKIY, Il'ya Yevseyevich; ZAV'YALOVA, A.N., red.; PONOMAREVA, A.A., tekhn. red.

[Synthetic fibers in the national economy] Khimicheskie volokna v narodnom khoziaistve. Moskva, Ekonomizdat, 1963. 242 p. (MIRA 16:7)

(Textile fibers, Synthetic)

FEDORENKO, N.; POGOSTIN, S.; FIALKOV, Yu.

Ways to increase labor productivity in the chemical industry. Vop. ekon. no.1:10-16 Ja '63. (MIRA 16:2)

1. Chlen-korrespondent AN SSSR (for Fedorenko).
(Chemical industries--Labor productivity)

KOCHEROV, N.P.; FEDORENKO, N.P.

Economic features of the methods of polystyrene manufacture.
Plast.massy no.1:53-55 '63. (MIRA 16:2)
(Styrene polymers)

KOCHEROV, N.P.; FEDORENKO, N.P.; ANICHKINA, N.M.

Economic efficiency of the use of plastics in the manufacture of home refrigerators. Plast.massy no.10:43-45 '63. (MIRA 16:10)

FEDORENKO, N.; SHCHUKIN, Ye., kand. ekonom. nauk

Production of synthetic materials should have a stable raw material base. NTO 5 no.3:43-44 Mr '63. (MIRA 16:4)

1. Chlen-korrespondent AN SSSR, predsedatel' ekonomicheskoy sektsii TSentral'nogo pravleniya Vsesoyuznogo khimicheskogo obshchestva imeni Mendeleyeva (for Fedorenko).
(Synthetic products)

FEDORENKO, N.; YAKOVLEV, M., inzhener-ekonomist

Specialization and concentration in the plastics industry.
Sots. trud 8 no.1:48-52 Ja '63. (MIRA 16:2)

1. Chlen-korrespondent AN SSSR (for Fedorenko).
(Plastics industry)

FEDORENKO, N.P., otvetstvennyy redaktor; VAYNSHTEYN, A.L., red.; MINTS, L.Ye., red.; URLANIS, B.TS., red.; FOMIN, B.S., red.; USVYATSEV, A.Ye., red.; BAKOVETSKAYA, V.S., red.; PLISKINA, Ye.M., red.; GUS'KOVA, O.M., tekhn.red.

[Planning and the methods of mathematical economics; on the 70th birthday of Academician V.S.Nemchinov] Planirovanie i ekonomiko-matematicheskie metody; k semidesiatiletiiu so dnia rozhdeniia akad. V.S.Nemchinova. Moskva, Izd-vo "Nauka," 1964. 479 p. (MIRA 17:1)

1. Akademiya nauk SSSR. Otdeleniye ekonomicheskikh nauk.
2. Chlen-korrespondent AN SSSR (for Fedorenko).

FEDORENKO, N.P.; RAKHLIN, I.V., kand.ekonomicheskikh nauk

Economic problems involved in the wide adoption of chemistry in the national economy. Zhur.VKHO 9 no.1:2-12 '64. (MIRA 17:3)

1. Chlen-korrespondent AN SSSR (for Fedorenko).

ACCESSION NR: AP4039228 S/0064/64/000/005/0339/0344

AUTHORS: Fedorenko, N.P.; Braginskiy, O.B.; Fridman, L.A.; Shchukin, Ye.P.

TITLE: Economic efficiency of the pyrolysis of low octane gasolines

SOURCE: Khimicheskaya promy*shlennost', no. 5, 1964, 339-344

TOPIC TAGS: low octane gasoline, pyrolysis, high octane gasoline, aromatic hydrocarbon, naphthalene, naphthene, liquid pyrolysate, liquid hydrocarbon pyrolysis, production cost, petrochemical, chemical intermediate, hydrogenation, absorption oil, plasticizer

ABSTRACT: Work in various scientific institutes and experimental industrial laboratories had shown the low octane gasoline fraction to be the most valuable liquid petrochemical crude--in its chemical processing there are obtained a series of intermediates including divinyl and aromatic hydrocarbons in addition to ethylene and propylene. Various liquid hydrocarbons obtained in the production, stabilization and processing of petroleum (gaseous gasoline fractions, condensate, directly distilled gasoline, raffinates, products from cracking and subsequent dearomatization) had been evaluated to

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determine the material most suitable for pyrolysis. Processing of the liquid products from the pyrolysis of low octane gasolines yielded a predominant amount of high molecular olefinic and diolefinic hydrocarbons, about 30 weight% aromatics and about 20 weight % naphthenes. The products may be recovered by intensive processing of the pyrocondensates, or high octane gasoline products may be obtained by hydrogenation of the fraction boiling below 200C at low pressures (10-20 atm). At the NIISS (Scientific Research Institute of Synthetic Alcohols and Organic Products) calculations were made of the costs involved in processing the pyrocondensates to produce either the high octane gasoline or to obtain the aromatic hydrocarbons, resins and other products. For the latter the calculations were based on a complex scheme for most completely recovering all the pyrolysis resin components. Such a scheme, derived from various methods described in the Russian literature, involves the separation of the components in the six fractions: to 70C (mostly unsaturated C_5 hydrocarbons); 70-120C (high percent of aromatics, subjected to catalytic cracking at 3-5 atm., 400-450C, 0.5-0.75 sec^{-1} space velocity), 120-200C (unsaturated hydrocarbons for polymeric resins, to

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be polymerized with diisopropylbenzene peroxide), 200-230C (naphthalene, to be recovered by methods used in the coal tar chemical industry), 230-320C (to be subjected to high temperature hydrogenation; the 200-230C fraction to be used for naphthalene recovery, the higher boiling products, as absorbtion oils), and pitch (for resin plasticizers). The calculations confirmed the suitability, from the standpoint of the national economy, of using the liquid hydrocarbons in petrochemical processing. The expenses for the recovery, preparation and distillation of the additional petroleum required to obtain the directly distilled gasoline fraction for the complex pyrolysis process are rapidly recovered. Orig. art. has: 5 tables.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00

SUB CODE: FP NR REF SOV: 008 OTHER: 006

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